U.S. Department of the Interior Bureau of Land Management Kremmling Field Office P O Box 68 Kremmling, CO 80459

ENVIRONMENTAL ASSESSMENT

NUMBER: CO-120-08-42-EA

PROJECT NAME: EOG Resources Applications for Permits to Drill (APDs)

<u>LEGAL DESCRIPTION</u>: T. 7 N., R. 80 W., Sec. 32

T. 6 N., R. 80 W., Sec. 5

Jackson County

APPLICANT: EOG Resources, Inc.

DESCRIPTION OF PROPOSED ACTION AND ALTERNATIVES

<u>Background/Introduction</u>: The Federal mineral estate administered by the Bureau of Land Management (BLM) as part of its mineral leasing program provides minerals, including fossil fuels, for the benefit and use of the American public and encourages development of domestic oil and gas reserves to reduce dependence on foreign energy supplies. Mineral development is supported by the Mineral Leasing Act (1920 30 USC 181 et. seq.) and the Federal Land Policy and Management Act (FLPMA).

Applications for Permits to Drill (APD) the Spicer 3-32H and Surprise 2-05H wells were received on 3/20/08, with an on-site review occurring on 4/28/08, as soon as weather and schedules permitted. BLM Kremmling Field Office staff at the on-site examination included: Bill Wyatt, Archeologist; Pete Torma, Range Management Specialist; Paula Belcher, Hydrologist; Megan McGuire, Wildlife Biologist; Mandy Scott; Natural Resource Specialist, Joe Stout; NEPA Coordinator and Kelly Hodgson; Natural Resource Specialist. Dan Holgren and Alfreda Schulz represented EOG. Access road alignments were discussed at the on-site meeting.

PROPOSED ACTION: EOG Resources, Inc. (EOG) proposes to drill 2 new oil wells in Jackson County during the summer of 2008. The Spicer 3-32H well would be located in T. 7 N., R. 80 W., Sec. 32, SWSW1/4. The Surprise 02-05 well would be located in T. 6 N., R 80 W., Sec. 5, SWSE1/4. Both well sites are on BLM-administered surface and mineral estate. The standard Conditions of Approval are incorporated as part of the Proposed Action and included as Attachment #1. Development of both wells is constrained by a lease stipulation requiring the protection of perennial water. The design features developed during on-site inspections are described below, and are incorporated as part of the Proposed Action. Additionally, the surface-use plans provided by EOG are incorporated by reference as part of the Proposed Action. Surface disturbance expected from developing the two wells is shown in the following chart, based on pit dimensions, finished pad grade elevations, and topography. Access roads on BLM-administered surface are on-lease and would be authorized by the APDs. About one-quarter mile of the one-half mile Surprise well access road is across privately owned surface and would require an easement from the landowner.

| Well | Well pad Disturbance (Acres) | Max Vertical Cut (ft.) | Cut/Fill Slope grades | Existing Hillside Slope (approx.) | New Road disturbance (Lin. ft.) | Road Disturbance area (Acres) | Total site disturbance (Acres) |
|-------------------|------------------------------------|------------------------------|-----------------------------|--------------------------------------------|---------------------------------------|----------------------------------------|--------------------------------------|
| Spicer 3-32H | 2.8 | 13.2* | 2:1 | 2-5% | 528 | 0.5 | 3.3 |
| Surprise 2-05H | 2.8 | 13.7* | 2:1 | 2-5% | 2,640 | 2.4 | 5.2 |
| Total | 5.6 | | | | 3,168 | 2.9 | 8.5 |

^{*}Note: These cut depths include the total pit depth and are not reflective of the true cut and fill for the pads (i.e. the maximum cut for the Spicer 3-32H pad would be 3.4 ft, with the pit then constructed within the cut area.)

Additional details of the well sites include the following:

- Well pad dimensions would be approximately 305' x 400'.
- New access roads would have a 40' wide sub-grade with a 16' wide crowned driving surface, constructed, maintained, and improved as necessary.
- New roads would be surfaced with crushed rock or gravel for all-weather access. The
 new roads would remain until the wells are abandoned, at which time they would be
 obliterated and the road and pad areas reclaimed.
- Since the proposed well sites lie on relatively flat terrain, there would be minor cut and fill for the well pads. The submitted plans indicate that these sites would have 1.5:1 cut slopes, and 2:1 fill slopes. The 1.5:1 cut slopes and the 2:1 fill slopes are expected to be stable for the short duration of the drilling operations at these sites.
- Post drilling production would include partial pad reclamation at these sites, reducing the pad area, as well as a reduction in the cut and fill slope angle of repose for long-term stability.

<u>Design Features of the Proposed Action</u>: After the 4/28/08 on-site, the following design features were agreed upon and incorporated as part of the Proposed Action:

- Both access roads would be graveled at the time of construction.
- Any long-term topsoil piles stored longer than six months would be seeded. EOG indicated during on-sites that once the pads were partially reclaimed, topsoil piles would be spread. Topsoil must be of an adequate volume to spread to a 4 inch depth at final reclamation.
- EOG must obtain a storm-water permit from the state prior to drilling.

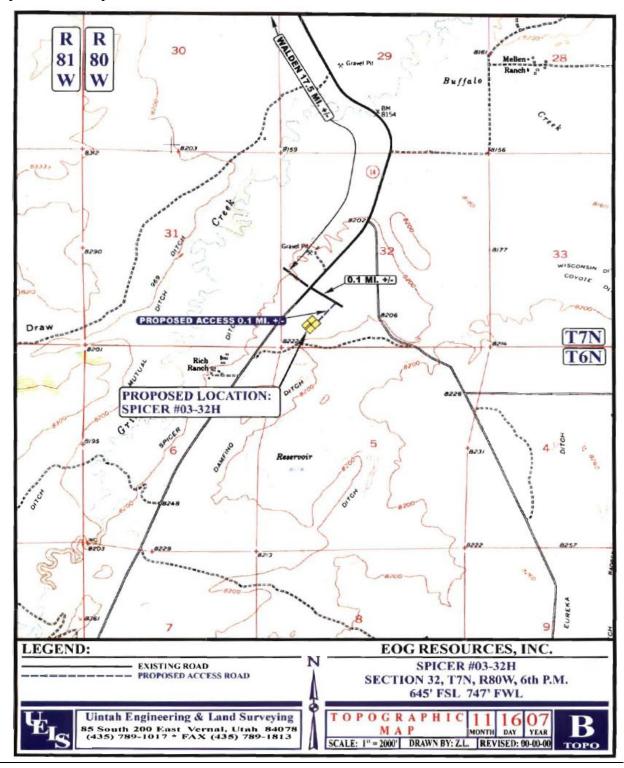
Surprise Well (02-05H):

- The Surprise Well (02-05H) would not have a reserve pit, but be a closed system.
- The Surprise Well's production tanks would be moved to the eastern/northern portion of the pad, and during the post drilling partial pad reclamation, the eastern/northern portions of the pad would remain, rather than the western/southern portion nearest the drainage, as proposed in the APD.
- The access road for the Surprise Well would have culverts (see map below for culvert locations and size) and adequate drainage design, especially as it starts downhill west of the fence.

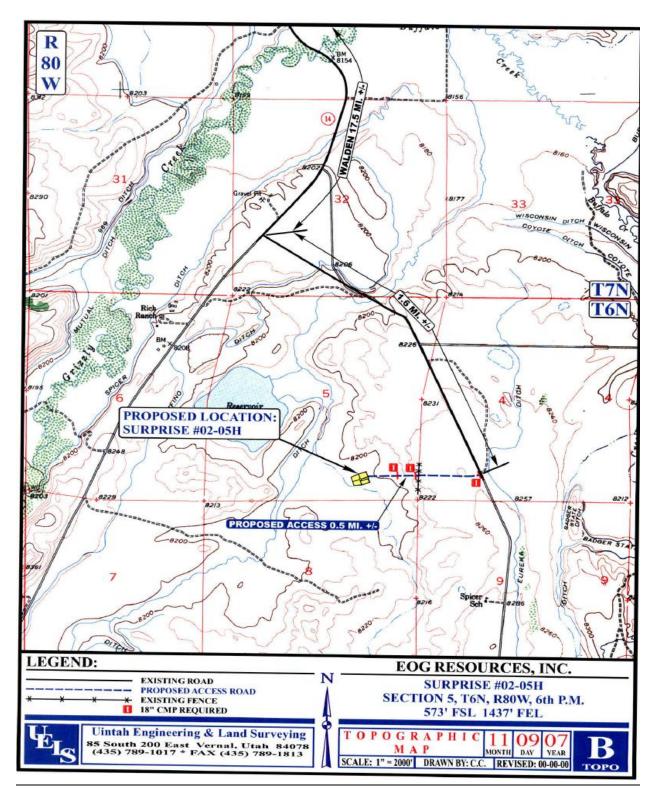
Spicer Well (03-32H):

- The Spicer Well (03-32H) would have a lined reserve pit. The pit would be thoroughly evaporated (no squeezing) and liner folded in and buried.
- The access road for the Spicer Well would have a single 18" x 60' culvert where the proposed access road leaves the County Road.

Spicer Well Map:



Surprise Well Map:



No Action Alternative: The No Action Alternative would deny EOG the proposed well-site developments and the associated access roads. Although the Spicer and Surprise APDs could be denied, the leases held by EOG grant the right of development. Thus, APDs for other locations on the leases could be submitted in place of the Spicer and Surprise APDs, if they were denied. Given the stipulations on the leases, EOGs surface use plans, and the agreements made with EOG during the on-site inspections, which have been made part of the proposed action, denial of the APDs is not a reasonable alternative. Thus, the No Action Alternative will not be analyzed in detail in this environmental assessment.

<u>PURPOSE AND NEED FOR THE ACTION</u>: The BLM received APDs from EOG Resources, Inc. for the Spicer 3-32H and Surprise 2-05H wells on federal surface/federal mineral estate to explore for and develop oil and gas reserves in the United States. Lease development was essentially guaranteed when the leases were issued [Mineral Leasing Act of 1920, 30 USC 181 et. seq., as amended, and the Federal Land Policy and Management Act (FLPMA)]. Federal leases are issued for an initial term of 10-years and are valid indefinitely as long as capability to produce in paying quantities is maintained, either on a leasehold basis or on a unit basis (if the lease is contained in an approved oil/gas unit).

The BLM is preparing the Environmental Assessment (EA) to address potential impacts associated with approval of EOG Resources's APDs. If approved, it would further BLM's objective contained in the 1991 Oil and Gas Leasing and Development EIS/ROD to: "Facilitate orderly, economic, and environmentally-sound exploration and development of oil and gas resources using balanced multiple-use management.

It is the intent of the applicant to exercise their lease rights to occupy as much of the lease surface as is reasonable for exploration and extraction of oil and gas.

<u>PLAN CONFORMANCE REVIEW</u>: The Proposed Action is subject to and has been reviewed for conformance with the following plan (43 CFR 1610.5, BLM 1617.3): The Proposed Action is subject to the following plan:

Name of Plan: Kremmling Resource Management Plan, Record of Decision (ROD)

<u>Date Approved</u>: December 19, 1984 (Updated June 1999), and as amended by Record of Decision on December 5, 1991 as described in the Colorado Oil and Gas Leasing and Development Final Environmental Impact Statement (O&G EIS).

Decision Number/Page: ROD (map 3, p. 14)

<u>Decision Language</u>: To facilitate orderly, economic and environmentally sound exploration and development of oil and gas resources using balanced multiple-use management (ROD, p.11). Important wildlife habitat will be protected with the use of no surface occupancy, timing limitations or controlled surface use stipulations and /or lease notices on oil and gas leases, and conditions of approval (COA) on permits (ROD, p. 3).

<u>Standards for Public Land Health</u>: In January 1997, Colorado Bureau of Land Management (BLM) approved the Standards for Public Land Health. These standards cover upland soils, riparian systems, plant and animal communities, threatened and endangered species, and water

quality. Standards describe conditions needed to sustain public land health and relate to all uses of the public lands. Because a standard exists for these five categories, a finding must be made for each of them in an environmental analysis. These findings are located in specific elements listed below:

| Standard | Definition/Statement | | | | | |
|-------------------|------------------------------------------------------------------------------------------------------|--|--|--|--|--|
| #1 Upland Soils | Upland soils exhibit infiltration and permeability rates that are appropriate to soil type, climate, | | | | | |
| | land form, and geologic processes. Adequate soil infiltration and permeability allows for the | | | | | |
| | accumulation of soil moisture necessary for optimal plant growth and vigor, and minimizes | | | | | |
| | surface runoff. | | | | | |
| #2 Riparian | Riparian systems associated with both running and standing water, function properly and have | | | | | |
| Systems | the ability to recover from major surface disturbances such as fire, severe grazing, or 100-year | | | | | |
| | floods. Riparian vegetation captures sediment, and provides forage, habitat and bio-diversity. | | | | | |
| | Water quality is improved or maintained. Stable soils store and release water slowly. | | | | | |
| #3 Plant and | Healthy, productive plant and animal communities of native and other desirable species are | | | | | |
| Animal | maintained at viable population levels commensurate with the species and habitat's potential. | | | | | |
| Communities | Plants and animals at both the community and population level are productive, resilient, | | | | | |
| | diverse, vigorous, and able to reproduce and sustain natural fluctuations, and ecological | | | | | |
| | processes. | | | | | |
| #4 Threatened and | Special status, threatened and endangered species (federal and state), and other plants and | | | | | |
| Endangered | animals officially designated by the BLM, and their habitats are maintained or enhanced by | | | | | |
| Species | sustaining healthy, native plant and animal communities. | | | | | |
| #5 Water Quality | The water quality of all water bodies, including ground water where applicable, located on or | | | | | |
| | influenced by BLM lands will achieve or exceed the Water Quality Standards established by | | | | | |
| | the State of Colorado. Water Quality Standards for surface and ground waters include the | | | | | |
| | designated beneficial uses, numeric criteria, narrative criteria, and anti-degradation | | | | | |
| | requirements set forth under State law as found in (5 CCR 1002-8), as required by Section | | | | | |
| | 303(c) of the Clean Water Act. | | | | | |

Because a standard exists for these five categories, a finding must be made for each of them in the environmental analysis. These findings are located in specific elements below or in the Interdisciplinary Team Analysis Review Record and Checklist (IDT-RRC) (Appendix 1).

<u>AFFECTED ENVIRONMENT / ENVIRONMENTAL CONSEQUENCES / MITIGATION</u> MEASURES:

<u>CRITICAL ELEMENTS</u>: The following critical elements were evaluated and determined that they were not present or that there would be no impact to them from the Proposed Action or No Action Alternative: Areas of Critical Environmental Concern, Cultural Resources, Environmental Justice, Native American Religious Concerns, Farmlands- Prime and Unique, Floodplains, Invasive/Non-Native Species, Wild and Scenic Rivers, and Wilderness. See Interdisciplinary Team Analysis Review Record and Checklist (IDT-RRC) in Appendix 1 for further information.

The following critical elements were determined to be potentially impacted and were carried forward for analysis from the IDT-RRC in Appendix 1.

AIR QUALITY

Affected Environment: Air quality in the North Park area is generally good, with some winter inversions in the center of the area around Walden. The North Park area is surrounded by several Class I Air Quality Areas (i.e. areas requiring the most stringent air pollution controls). Prevailing winds in the area are from the west-southwest. There is currently one well flaring gas in the vicinity of these proposed wells, approximately 1 mile northeast of well #03-32H (Spicer).

Environmental Consequences: The Proposed Action would result in localized short-term increases in carbon monoxide, nitrogen dioxide, ozone, and sulfur dioxide concentrations, but well below applicable ambient air quality standards. Hazardous air pollutant concentrations would be well below standards and the related short and long term cancer risks to well rig operators and nearby residents would be below significance levels. Minor adverse impacts to air quality would result in the immediate vicinity of the well development. These impacts would include dust or odors from oil and gas operations that can be irritable to individuals with chemical sensitivities or breathing difficulties. Since the oil and gas development would occur approximately 15 miles south of Walden, these impacts would not affect town residents or visitors.

The Rich ranch is located about 0.5 miles west-southwest of the Spicer well and the Mellen ranch 1.5 miles to the northeast of the well. The nearer ranch is less at risk due to the prevailing wind patterns and the ranch's elevation being relatively level to the well. The Mellen ranch to the northeast sits lower than the well. The Surprise well is approximately 1.3 miles west of the Seymour ranch. The Surprise well sits in a low lying area, which would reduce the concentrations that would reach the Seymour ranch. At the current well density, the wells would not be expected to produce sufficient concentrations even in the low lying river bottoms to impact these ranches.

Construction of the pads would create some fugitive dust, depending on the soil moisture and weather at the time. The wells are located east of the nearest highway, and south of the main county road. Due to the proximity to the county road, prevailing winds, and the topography, dust control on the Spicer site could be necessary to insure traffic safety during pad and road construction. The small amount of dust and its short duration would not impact air quality in the area.

MIGRATORY BIRDS

Affected Environment: The proposed well sites would be located in sagebrush steppe habitat. Migratory birds expected to inhabit the project sites include Sage Sparrows, Horned Larks, Western Kingbirds, Common Nighthawks, Green-tailed Towhees, Red-tail Hawks, Prairie Falcons, Western Bluebirds, American Kestrals, Burrowing owls, Swainson's hawks, and golden eagles.

Environmental Consequences: The proposed project would eliminate a small amount of sagebrush habitat. However, no take of migratory species would be expected to occur as a result of the project. If the construction of roads ands pads is completed after the peak nesting season (April 1st to July 15th) it is not likely that active nests from ground nesting species will be destroyed. If construction occurs during this period, it is possible that a few nests would be destroyed and/or the activity may cause nest abandonment. The reclamation plan, which would be implemented after project completion, would adequately restore most of the sagebrush habitat lost due to the project's construction activities. Accordingly, the Proposed Action would not have any major direct, indirect, or cumulative impacts on migratory birds.

THREATENED, ENDANGERED, AND SENSITIVE SPECIES (includes a finding on Standard 4)

Affected Environment: The Proposed Action is located within the North Platte River basin, which is tributary to the Platte River System. The USFWS has determined that any water depletion within the Platte River jeopardizes the continued existence of one or more federally-listed threatened or endangered species and adversely modifies or destroys designated and proposed critical habitat. Depletions may affect and are likely to adversely affect the whooping crane, the interior least tern, the piping plover, and the pallid sturgeon in Nebraska. In the fall of 2006, an agreement was signed between the governors of Colorado, Nebraska, and Wyoming and the U.S. Secretary of the Interior to implement a basin-wide Platte River Recovery Implementation Program. The Program will provide ESA compliance for water users in the Platte River basin for effects on the target species and habitat, and went into effect on January 1, 2007.

The proposed well sites would be located in habitat occupied by Greater sage-grouse, a BLM designated sensitive species. While sage-grouse occupy the project area on a yearlong basis, the area is especially important as nesting and brood rearing for sage-grouse. Two sage-grouse breeding complexes (i.e. referred to as leks) are located at 2.1 and 3.4 miles from the Spicer well and 3.2 and 3.4 miles from the Surprise well. The sagebrush habitat adjoining the lek provides hiding and nesting cover for sage-grouse during the breeding season.

No other threatened, endangered or sensitive species are known to inhabit the proposed project area.

Environmental Consequences: The Proposed Action would represent an initial depletion of 0.06 acre-ft, using EOG's estimate of 10,000 gallons of water/well drilled. A private water source would be used. All produced water would be re-injected. A programmatic biological opinion was completed on June 16, 2006, that covers new depletions, but the exact reasonable and prudent alternatives for federal depletions from new projects is still being determined, especially

for non-agricultural related activities. The BLM is working with the USFWS, and the applicant and the BLM would need to comply with the reasonable and prudent alternatives once the USFWS determines them.

Since vegetative loss from the proposed well sites development would occur, a small amount of sage-grouse nesting habitat would be impacted by the proposed project. Most of this habitat would be restored when the well site pads are successfully reclaimed with native vegetation. The distance from the proposed well sites to the leks, located 2.1 miles to the northwest and 3.2 miles to the northeast, should be sufficient to avoid conflicts with breeding sage-grouse and drilling activities. EOG has indicated that these wells would be drilled between July and October 2008. But, to assure no conflicts with nesting sage-grouse, the following mitigation is proposed.

Mitigation:

• If EOG's drilling activity does not occur in the planned timeframe (July-October 2008), they would be required to consult with the BLM to discuss potential sage-grouse issues.

Finding on the Public Land Health Standard for Threatened & Endangered species: Allotment # 07131 was not assed for standards. However, based on the field visit during the onsite, and that such a small area is affected (6.8 acres), the Proposed Action would not affect the area's ability to meet the Standard 1.

WATER QUALITY, SURFACE AND GROUND (includes a finding on Standard 5)

Affected Environment: The proposed wells are located in the North Platte River basin, within the Grizzly Creek 5th order watershed. The Spicer well would be located on an old terrace of the creek. The Surprise well location is staked adjacent to an unnamed intermittent tributary to Buffalo Creek, a tributary to Grizzly Creek. The "Buffalo Creek tributary mire" is upstream of the well approximately 1.2 miles, and would be expected to provide a fairly constant water table in the area. Neither Grizzly Creek nor Buffalo Creek are listed on Colorado's 303(d) List for impaired water quality. Grizzly Creek is included, however, on the Monitoring and Evaluation List for possible aquatic life impairment. Additional data is needed for streams on the list to determine if an actual impairment exists, and if so, for which specific stream segment(s), which constituent(s), and possible sources. The BLM monitors water quality on Grizzly Creek upstream of the wells on public lands. There are no identified water quality concerns on the segment.

Environmental Consequences: Both proposed wells represent more than one surface-acre of disturbance and would require a stormwater permit from the State Water Quality Control Division. Prior to receiving a permit, the operator must have a Storm Water Management Plan filed with the state. During the on-site visit, the applicant stated that this was being done. The plan and the permit help insure that the proposed construction practices would include best management practices to reduce runoff from the site and that the Proposed Action is in compliance with the Clean Water Act & amendments.

Runoff from the Spicer pad and access road would be minimal due to the soils and the gentle slope. Any runoff leaving the disturbances would travel primarily to the north-northwest, where

the county road and highway would detain the runoff. It is unlikely that the runoff from the Spicer well and road would reach any surface waters. The reserve pit would be lined and thoroughly evaporated prior to being folded towards the center, capped, and buried. This would reduce the potential for groundwater contamination from the surface pad. The well would be directionally drilled with the actual bottom of the well located within the Grizzly Creek floodplain. Downhole ground water protection is addressed by the Little Snake Field Office's Petroleum Engineer.

Runoff from the Surprise Well Pad and road would travel to the unnamed intermittent drainage. The drainage is less than 100 feet from the southwest, southern, and southeastern sides of the pad. Just downstream of the pad, the drainage supports a wetland approximately 4.7 acres in size. Best management practices to prevent sediment loading, ground disturbance, and groundwater contamination are important for this site. During the on-site, EOG stated that the drilling would be a closed system, with no reserve pit constructed and the production tanks could be located on the northern portion of the pad, away from the drainage. As the pad size is reduced and partially reclaimed after drilling, the eastern/northern portions of the pad would remain, rather than the western/southern portion nearest the drainage as proposed in the APD. Another identified concern during the onsite was the access road as it leaves the upper bench and drops down to the well pad's elevation. The access road crosses an ephemeral drainage and travels in another one west of the fence. The location was selected as the shortest and easiest way to keep a gentle grade and get down the hill. Adequate drainage, however, including culverts designed to handle expected runoff, would be needed. These concerns were incorporated as design features of the Proposed Action. Thus, there would be minimal impacts to water quality.

Finding on the Public Land Health Standard for water quality: The Proposed Action occurs in an area generally considered to be meeting Standard #5. By implementing their storm-water management plan for the wells and the access roads, impacts to surface waters would not affect the area's ability to continue to meet the standard. Successful best management practices would be important to protect ground and surface water quality at the Surprise Well.

WETLANDS & RIPARIAN ZONES (includes a finding on Standard 2)

Affected Environment: Both proposed pads and access roads are located in upland areas. The Surprise Well, however, is immediately adjacent to an intermittent drainage that is fed by an upstream mire and has a wetland area just downstream of the pad. The drainages in the area are also fed by private irrigation practices, including ditches and ponds. The drainage and wetland areas are primarily sedge/rush communities, with the downstream wetland not having been field inventoried. Also in the area are small ponds, which appear to be low lying areas that hold runoff and/or irrigation wastewater. These appear to be more alkaline salt flats that support rush communities.

Environmental Consequences: The proponent is anticipating a high water table at the Surprise well site, and is therefore proposing a closed drilling system with no reserve pit. All pad construction and surface disturbances are proposed only in uplands, but there is a greater potential for spills or runoff to reach the wetland. Relocating the production tanks to the furthest distance from the drainage and wetlands would increase the distance to the wetland and to the water table. As soon as the pad size could be decreased, the portions nearest the drainage would be reclaimed to help protect the wetlands from damage.

Finding on the Public Land Health Standard for riparian/wetland systems: The wetland area is meeting the Land Health Standard. The proposed pad is roughly 60-100 feet from the wetland and the drainage. By reclaiming the most southerly/westerly portions of the pad after drilling, the buffer distance would be increased, further protecting the drainage and wetland.

WASTES- HAZARDOUS OR SOLID

Affected Environment: Some potentially hazardous materials would be used during well drilling and maintenance. In addition, solid waste would be generated during these proposed activities.

According to 29 CFR 1910.1200(g), the oil and gas operator is to maintain a file containing Material Safety Sheets (MSDS) for all chemicals, compounds, and/or substances which are utilized during the course of construction, drilling, completion, and production operations of this project. This file is to be available at all times employees are present at the site. Hazardous materials that may be present at the site include drilling mud and cementing products that are primarily inhalation hazards. Flammable or combustible motor fuels would be present. Proprietary materials necessary for well completion and simulation such as acids and corrosives are often used. Human solid and liquid wastes would be generated primarily during the construction and drilling phases of the project.

Environmental Consequences: There would be no direct, indirect, or cumulative impacts from the Proposed Action. However, this is dependent upon responsible use of chemicals and immediate containment and adequate cleanup in the event of a release. Consequences would be dependent on the volume and nature of the material released. In most situations involving hazardous materials, there are ways to remediate the area that has been contaminated. The operator is required to immediately contact BLM KFO, remove all free oil, and coordinate with the BLM in cleanup and bioremediation operations.

<u>NON-CRITICAL ELEMENTS</u>: The following non-critical elements were determined to be potentially impacted and were carried forward for analysis from the IDT-RRC in Appendix 1.

SOILS (includes a finding on Standard 1)

Affected Environment: Soil information is from the Jackson County Soil Survey, and is used to give general soil information. Due to the small size of the disturbance, actual soil conditions could vary. The Spicer well site and road are mapped as being in the Cabin soil series. These soils formed in gravelly alluvium and are generally sandy loams on the surface. The soils have coarse textures to at least 7 feet in depth, providing no resistance or barrier to water movement. The Surprise well site and road are mapped as being in Blackwell loams (nearest drainage) and Fluetsch-Tiagos association, which is composed of sandy loam/fine sandy loams. Blackwell loams formed in mixed alluvium and have a shallow depth to the water table. Fluetsch-Tiagos soils formed in calcerous alluvium that is derived from sandstone and shale.

Environmental Consequences: None of the mapped soils have high soil strength and tend to cave when cut. All cutbanks need to be sloped back a minimum of 1.5:1, preferably 2:1. The Spicer well soils and the Blackwell soils of Surprise well tend to have no restrictive layers for water movement in at least the top 7 feet. Lining of the Spicer pit would help prevent any subsurface movement of contaminants. The Spicer road is rated as having moderate limitations, and the gravelling surface would minimize erosion and maintenance needs for the road. The Surprise road has severe limitations due to the slope and erodiblity of the Fluetsch-Tiagos soils. Gravelling the road, constructing it to a gentle grade, and providing good drainage with culverts and road design is essential to reduce erosion and maintenance costs. Good topsoil management is also important to ensure long-term productivity and function of the sites. Topsoil piles that are left for more than 6 months would be stabilized and seeded. The partial reclamation of the pads after drilling should help maintain the topsoil viability. If the pad's are entirely reclaimed, a minimum depth of 4 inches of topsoil would be spread over the pad. These design features have been incorporated as part of the Proposed Action, thus there would be minimal impacts to soils.

Finding on the Public Land Health Standard for upland soils: The affected areas are considered to be meeting the Standard for Land Health. The proposed action would impact a small (7 acres) area, which does not affect the ability to continue to meet the Standard on a landscape scale.

VEGETATION (includes a finding on Standard 3)

Affected Environment: In general, the vegetation found at all well sites is a mixture of sagebrush with an under story of grasses and forbs. The common grasses found in the area are; fescues species, wheat grasses species, stipa species and poa species. Common forbs found in the area are; lupin species, phlox species and larkspur species.

Environmental Consequences: The total disturbance for the 2 proposed well sites and new roads would be an estimated 6.8 acres. Thus, there would be direct impacts in the form of vegetation loss as a result of the Proposed Action. However, with the proposed reclamation utilizing native species seed mix, there would be minimal indirect and cumulative effects to the area's vegetation as a result of the Proposed Action.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Wildlife, Aquatic and Wildlife, Terrestrial): Allotment #s 07131 was not assed for standards. The grazing permit will be considered for renewal in 2009.

WILDLIFE, TERRESTRIAL (includes a finding on Standard 3)

Affected Environment: The proposed wells would be constructed in sagebrush steppe habitat which is occupied by a variety of terrestrial wildlife. Mule deer and Rocky Mountain elk move through the project area at various times in the year en-route to summer and winter range. Pronghorn and small mammals including badgers, coyotes, and a variety of small rodents inhabit the area on a yearlong basis.

Environmental Consequences: The proposed project is not expected to conflict with terrestrial wildlife, since habitat disturbance would be minimal. Most vegetative disturbances associated with the project would be reclaimed. Harassment or disturbance of wildlife would also be minimal since drilling activities would be short-term in isolated areas, and not likely to occur during periods of animal concentration. Animals may temporarily avoid the project area during and after operations due to noise, increased activity, and unfamiliar surroundings. The Proposed Action would not result in any major direct, indirect or cumulative impacts to the area's terrestrial wildlife.

Finding on the Public Land Health Standard for plant and animal communities (partial, see also Vegetation and Wildlife, Aquatic): Allotment # 07131 was not assed for standards. However, based on the field visit during the onsite, and that such a small area is affected (6.8 acres), the Proposed Action would not affect the area's ability to meet the Standard 3.

NOISE

Affected Environment: Sound levels in the project area would vary greatly, depending on proximity to existing residences, roadways, or other sources. These sound levels would fluctuate with variations in weather conditions including temperature, wind, humidity, and the general topography of the area. No background noise studies have been conducted, but the project area is located near Highway 14, with noise disturbance already present.

Environmental Consequences: There would be a short-term increase in noise levels in the Proposed Action while drilling. The distance to existing residences, the temporary nature of the drilling noise, and the use of quiet electric motors and well lubricated pumpjacks would limit any harmful effects of noise occurring under the Proposed Action.

RANGELAND MANAGEMENT

Affected Environment: Under the Proposed Action, the 2 well sites would be developed in grazing allotment # 07131. Allotment # 07131 is a mix of private, state, and federal land. The federal land is permitted for 180 Animal Unit Months (AUMs). There is the potential for 1 or 2 more wells to be drilled on private land within this allotment.

Environmental Consequences: The Proposed Action would cause a reduction of 6.8 acres of available forage. The loss of these acres would not cause a reduction in the current AUM

allocation or have an effect on the ability of the permittees to continue to graze these allotments as stated in their grazing permits.

HYDROLOGY AND WATER RIGHTS

Affected Environment: The proponent estimates that approximately 10,000 gallons of water would be needed during the drilling of each well. The Spicer well would have a reserve pit to evaporate drilling water, while the Surprise well would have a closed system and all water would be re-circulated into the well. There would also be a need for water for dust control during construction of the pads. The Colorado Division of Water Resources considers the North Platte drainage in Colorado fully appropriated.

Environmental Consequences: During phone conversations and during the onsite, the proponent has stated that they are securing the legal use of private water rights for their use during the development of these wells. It is their responsibility to insure that no other water rights, private or federal, are impacted by their water use. The use of water rights is governed by state laws and administered by the Division of Water Resources.

CUMULATIVE IMPACTS SUMMARY:

The geographic scope for the cumulative impact analysis is Jackson County. The 1991 Colorado Oil and Gas Leasing Final Environmental Impact Statement (O&G EIS) forecasted, for Kremmling Field Office, a total of 225 wells, of which 108 development and wildcat wells would be drilled on BLM lands (Appendix B, B20 & 21). Cumulative impacts for this forecasted development were analyzed in the O&G EIS based upon oil and gas surface disturbance totaling 2044 acres (Appendix B-2).

In regards to past actions regarding oil and gas activity, oil and gas was first discovered in northeastern Jackson County in 1926 by Continental Oil Company. This discovery marked the beginning of oil and gas development in the North McCallum Field. In 1952, oil was discovered in the Coalmont area southwest of Walden. Since that time, 13 fields have been discovered and developed, all in the North Park (Jackson County) area. Within these 13 fields, approximately 475 wells have been completed and approximately 50% of these wells were completed as dry holes.

In regards to present actions, there has been recent interest in the Coalmont Niabrara formation in southern Jackson County. To date, there have been 3 wells drilled on private surface.

In regards to future actions, there are approximately 10 additional wells planned for development within the Jackson County. When added to the impacts of all of the other actions in Jackson County, the cumulative impacts from this proposal are well within the 1% cumulative surface impacts projected for the Resource Area in the O&G EIS.

<u>PERSONS / AGENCIES CONSULTED</u>: The proposed project was listed on the Kremmling Field Office internet NEPA register and NEPA public room board. No comments were received from the public.

INTERDISCIPLINARY REVIEW: See IDT-RRC in Appendix 1.

FONSI

CO-120-2008-42-EA

Based on the analysis of potential environmental impacts contained in the attached environmental assessment, and considering the significance criteria in 40 CFR 1508.27, I have determined that the Proposed Action will not have a significant effect on the human environment. An environmental impact statement is therefore not required.

DECISION RECORD

<u>DECISION</u>: It is my decision to authorize the Proposed Action as described in the attached EA. This decision is contingent on meeting all mitigation measures and monitoring requirements listed below.

<u>RATIONALE</u>: The Proposed Action, to permit the drilling of the Spicer and Surprise wells, will allow for energy exploration in an environmentally sound manner. The design features of the Proposed Action and mitigation measures included below will ensure that the applicable natural resources are adequately protected.

MITIGATION MEASURES:

Sensitive Species:

• If EOG's drilling activity does not occur in the planned timeframe (July-October 2008), they must consult with the BLM to discuss potential sage-grouse issues.

NAME OF PREPARER: Kelly Hodgson

NAME OF ENVIRONMENTAL COORDINATOR: Joe Stout

DATE: 7/3/08

SIGNATURE OF AUTHORIZED OFFICIAL: /s/ Pete McFadden (Acting)

DATE SIGNED: 7/3/08

ATTACHMENTS:

1). Standard Conditions of Approval

APPENDICES:

Appendix 1 – Interdisciplinary Team Analysis Review Record and Checklist

Attachment #1

CONDITIONS OF APPROVAL FOR APPLICATIONS FOR PERMIT TO DRILL (APDs)

Operator: EOG Resources, Inc.

The Bureau of Land Management, Kremmling Field Office, address and telephone contacts are:

Address: 1116 Park Av., Kremmling, CO, 80459 Office Phone: (970) 724-3000 Fax: (970) 724-9590

Natural Resource Specialist: Kelly Hodgson, Office Phone (970) 724-3015

The Bureau of Land Management, Little Snake Field Office, address and telephone contacts are:

Address: 455 Emerson Street. Craig, CO, 81625 Office Phone: (970) 826-5000 Fax: (970) 826-5022

Petroleum Engineer: Stanley Eng, Office Phone (970) 826-5075
Petroleum Technician: Bob Eagan, Office Phone (970) 826-5093
Assistant Field Manager Jerry Strahan Office Phone (970) 826-5099

All lease and/or unit operations are to be conducted in such a manner to ensure full compliance with the applicable laws, regulations (43 CFR Part 3160), Onshore Oil and Gas Orders No. 1, 2, 3, 4, 5, 6 and 7, Notice to Lessees, and the approved plan of operations. Approval of this application does not relieve you of your responsibility to obtain other required federal, state, or local permits. A copy of the approved Form 3160-3 and the pertinent drilling plan, along with any advisory narratives and conditions of approval, shall be available at the drillsite to authorized representatives at all times. The operator is considered fully responsible for the actions of his subcontractors.

Your review and appeal rights are contained in 43 CFR 3165.3 and 3165.4.

CONDITIONS OF APPROVAL

STANDARD CONDITIONS

- 1. The Kremmling Field Office and the Little Snake Field Office (970) 826-5000 will be given 48-hour notification prior to commencing construction and/or reclamation work.
- 2. Notify Little Snake Field Office at (970) 826-5000 at least **48-**hours in advance to witness running and cementing of surface casing and testing of the BOPE.
- 3. The notice of spud will be reported orally to the Little Snake Field Office at (970) 826-5000 at least **48**-hours after spudding. This notice shall include spud date, time, details of spud (hole, casing, cement, etc.), API well number, and date the rotary rig was moved on location. If the spudding occurs on a weekend or holiday, wait until the following regular workday to make this report. The oral notice shall be followed by written notification within 5 working days.
- 4. No hazardous materials, hazardous wastes, or trash will be disposed of on public lands or on private surface overlying the oil and gas lease. If a release does occur, it will be reported to the Kremmling Field Office immediately at (970) 724-3000.
- 5. The wellsite disturbance area will be brush cleared and topsoil salvaged before any excavation or fill commences.
- 6. All survey stakes representing the leveled drill pad, the crest of excavations, the toe of embankments, the reserve pit, and the access road will be in place prior to construction. Staking shall include the well location, two 200-foot directional reference stakes, the exterior dimensions of the drill pad, reserve pit and other areas of surface disturbance, cuts and fills, and centerline flagging of new roads with road flagging being visible from one to the next.

- 7. Construction activities will not be allowed to commence if the topsoil cannot be separated from the subsoil during adverse environmental conditions (i.e. when soils are frozen or muddy).
- 8. Surface disturbance and vehicular travel will be limited to the approved location and approved access route. Any additional area needed will be approved in advance.
- 9. Drainage for runoff water will be provided to divert runoff water away from the reserve pit, cut and fill portions of the well location and the topsoil stockpile. Runoff water that concentrates and forms rills on the well location will be diverted and/or dispersed to prevent erosion of the fill slopes. Any ditches designed to provide runoff drainage will be constructed on a minimal grade and will release water onto undisturbed ground without causing accelerated erosion. The operator will take additional measures if erosion is occurring within the runoff water drainage system.
- 10. If fossils are discovered during construction or other operations, all activity in the area will cease and the Field Office Manager will be notified immediately. An assessment of significance will be made within an agreed timeframe. Operations will resume only upon written notification by the Authorized Officer.

STANDARD STIPULATIONS

- 11. If cultural or paleontological resources are discovered during exploration operations under this license, the licensee shall immediately notify the Field Officer Manager and shall not disturb such discovered resources until the Field Officer Manager issues specific instructions.
 - a. Within 5 working days after notification, the Field Office Manager shall evaluate any cultural resources discovered and shall determine whether any action may be required to protect or to preserve such discoveries.
 - b. The cost of data recovery for cultural resources discovered during exploration operations shall be borne by the licensee, if the licensee is ordered to take any protective measures. Ownership of cultural resources discovered shall be determined in accordance with applicable law.
 - c. The operator is responsible for informing all persons who are associated with the operations that they will be subject to prosecution for knowingly disturbing historic or archaeological sites, or for collecting artifacts. If historic or archaeological materials are encountered or uncovered during any project activities, the operator is to immediately stop activities in the immediate vicinity of the find and immediately contact the Authorized Officer at (970) 724-3000. Within five working days the Authorized Officer will inform the operator as to:
 - 1. Whether the materials appear eligible for the National Register of Historic Places;
 - 2. The mitigation measures the operator will likely have to undertake before the identified area can be used for project activities again and,
 - d. If the operator wishes, at any time, to relocate activities to avoid the expense of mitigation and/or the delays associated with this process, the Authorized Officer will assume responsibility for whatever recordation, and stabilization of the exposed materials may be required. Otherwise, the operator will be responsible for mitigation costs. The Authorized Officer will provide technical and procedural guidelines for the conduct of mitigation. Upon verification from the Authorized Officer that the required mitigation has been completed, the operator will then be allowed to resume construction.
 - e. Pursuant to 43 CFR 10.4(g) (Federal Register Notice: Monday December 4, 1995, Vol 60, No. 232) the holder of this authorization must notify the Authorized Officer, by telephone (970) 724-3000, with written confirmation, immediately upon the discovery of human remains, funerary items, sacred objects, or objects of cultural patrimony. Further, pursuant to 43 CFR 10.4(c) and (d), you must stop activities in the vicinity of the discovery and protect it for 30 days or until notified to proceed by the Authorized Officer.
- 12. The reserve pit will be designed to exclude runoff water and maintain a 2-foot freeboard between the maximum

fluid level and the lowest point of containment. The reserve pit will not be used for disposal of any materials or fluids, except for materials or fluids specifically addressed in the drilling program or having a subsurface origin. If oil or oily substance is in the reserve pit, it must be removed within 30 days after the drilling rig is removed. Netting will be installed if oily substance is present in the reserve pit.

- 13. The perimeter of the reserve pit and production pits, if any, will be fenced with woven wire with 2 strands of barbed wire, properly spaced, on the top and all held in place by side posts and corner H-braces to inhibit entry by livestock and wildlife. The fence will be maintained until backfilling or removal of facilities occurs.
- 14. In the event downhole operations threaten to exceed the required 2-foot freeboard, regarding reserve pit fluids, immediate notification will be provided to the Authorized Officer with concurrent steps taken to minimize the introduction of additional fluids, until alternative containment methods can be approved.
- 15. Reserve pit fluids will be allowed to evaporate through one entire summer season (May-September) after drilling is completed, unless an alternative method of disposal is approved. After the fluids evaporate, the reserve pit mud will be allowed to dry sufficiently to allow backfilling. The backfilling of the reserve pit will be completed within 30 days after dry conditions exist and will meet the following minimum requirements:
 - a. Backfilling will be done in such a manner that the mud and associated solids will be confined to the pit and not squeezed out and incorporated in the surface materials.
 - b. There will be a minimum of 5 feet of cover, or return to approximate original contour on the pit.
 - c. When the work is completed, the pit areas will support the weight of heavy equipment without sinking and over time shall not subside over 6-inch depth.
- 16. If installed, production facilities will be located on cut portions of the existing drill pad.
- 17. In the event production is established, all land surfaces that are to remain free of vegetation (roads and well location) will be monitored for and protected from wind erosion; dry powdery soil will be treated to minimize wind erosion.
- 18. Prior approval is required to remove reserve pit fluids from the reserve pit; a request of this type will need to include the destination of the fluids and if the destination is not a State approved facility, the request will include State approval of the destination. Fluids may be moved to another reserve pit within the same field with verbal approval of the authorized officer.
- 19. All pits, cellars, rat holes and other bore holes unnecessary for further lease operations, excluding the reserve pit, will be backfilled immediately after the drilling rig is released. Pits, cellars and/or bore holes that remain on location must be fenced as specified for the reserve pit in the applicant's Surface Use Plan.
- 20. In the event a producing well is established, all new production equipment which has open-vent exhaust systems will be constructed in such a way to prevent the entry and perching of birds and bats.
- 21. All permanent structures (on-site for six months or longer) constructed or installed (including oil well pumpjacks) will be painted a flat, non-reflective, earthtone color to match the standard environmental colors, as determined by the Rocky Mountain Five-State Interagency Committee. All facilities will be painted within six months of installation. Facilities required to comply with OSHA (Occupational Safety and Health Act) will be excluded.
- 22. Surface facilities should appear to blend in to the existing landscape to the greatest possible extent. Facilities should not be located on ridgelines or extend above them. Facilities should be minimal in size (or located underground) and colored and texture to blend in with the surroundings.
- 23. A containment berm must be installed around all storage tanks, including temporary tanks. Compaction and construction of the berm surrounding the tank or tank battery will be designed to prevent lateral movement of fluids through the utilized materials, prior to storage of fluids. The berm must be constructed to contain at minimum 110 percent of the storage capacity of the largest tank within the berm. All loading lines will be placed inside the berm.

24. Control of noxious weeds will be required through successful vegetation establishment and/or herbicide application. It is the responsibility of the lease operator to insure compliance with all local, state, and federal laws and regulations, as well as labeling directions specific to the use of any given herbicide.

RECLAMATION PERFORMANCE STANDARDS

25. The lessee is required to use the reclamation practices necessary to reclaim all disturbed areas. Reclamation will ensure surface and subsurface stability, growth of a self-regenerating permanent vegetative cover and compatibility with post land use. The vegetation will be diverse and of the same seasonal growth as adjoining vegetation. Post land use will be determined by the Authorized Officer but normally will be the same as adjoining uses.

Reclamation practices which must be applied or accomplished are: re-grading to the approximate original contour, effectively controlling noxious weeds, separating, storing and protecting topsoil for redistribution during final abandonment, seeding and controlling erosion. If topsoil is not present, or quantities are insufficient to achieve reclamation goals, a suitable plant growth media will be separated, stored and protected for later use. Reclamation will begin with the salvaging of topsoil and continue until the required standards are met. Topsoil that is stored for 1 year or longer will be seeded with naturally occurring species to retain topsoil vigor. If use of the disturbed area is for a short time (less than one year), practices which ensure stability will be used as necessary during the project, and reclamation, with the exception of vegetative establishment, will be completed within one year. If use of the area is for greater than one year, interim reclamation is required on the unused areas. Interim reclamation of the unused areas will begin immediately upon completion of the permanent facility(s).

For both short and long term projects vegetative establishment will be monitored annually. If the desired vegetation is not established by the end of the second growing season, practices necessary for establishment will be implemented prior to the beginning of the next growing season. Interim reclamation, unless otherwise approved, will require meeting the same standards as final abandonment with the exception of original contour.

Annual reports consisting of reclamation practices completed and the effectiveness of the reclamation will be provided to the Kremmling Field Office. The first report will be due in January following initiation of reclamation practices and annually thereafter until final abandonment is approved.

There are numerous reclamation practices and techniques that increase the success rate of reclamation and stabilization. With the exception of those stated above, it is the lessee's prerogative to use those they choose to accomplish the objective. Additional site specific mitigations may be specified and required. However, it is recommended that state-of-the-art reclamation, stabilization, and management practices be used to achieve the desired objective in a timely and cost-effective manner.

The following definitions and measurements will be used to accomplish and determine if reclamation has been achieved:

Permanent vegetative cover will be accomplished if the basal cover of perennial species, adapted to the area, is at lease ninety (90) percent of the basal cover of the undisturbed vegetation of adjoining land or the potential basal cover as defined in adjacent undisturbed areas.

Diversity will be accomplished if at least two (2) perennial genera and three (3) perennial species that are adapted to the area make up the basal cover of the reclaimed area in precipitation zones thirteen (13) inches or less. One species will not make up more than fifty (50) percent of the perennial vegetation by basal cover.

Self-regeneration and adaptation to the area will be evident if the plant community is in good vigor, there is evidence of successful reproduction, and the species are those commonly found in the area.

Surface stability will be accomplished if soil movement as measured by deposits around obstacles, depths of truncated areas, and height of pedestalling, is not greater than three tenths (0.3) of an inch and if erosion channels (rills, gullies, etc.) are less than one (1) inch in depth and at intervals greater than ten (10) feet.

If this standard is not met by the end of the second growing season, two alternatives exist depending on the severity of the erosion:

If erosion were greater than two (2) times the allowable amount, corrective action would have to be taken by the responsible company at that time;

If erosion is less than or equal to two (2) times the allowable amount, and it is determined the erosion occurred during vegetative establishment and the site may become stable, no corrective action would be required at that time. Another measurement would be performed a year later to determine if stability standards had been met. If the original measurements have not increased by more than the allowed standard, the standard would be considered met. However, if the increase were greater than the allowed standard, corrective action would be required.

Subsurface stability (mass wasting event) is of concern if disturbance has included excavation over four (4) feet in depth and greater than 10,000 square feet in area on slopes thirty five (35) percent and greater, or on any erosion-prone slope. When these conditions occur, length of liability for reclamation and final abandonment will continue for ten (10) years following re-contouring to original contour or for such time that climatic patterns provide two (2) consecutive years in which measurable precipitation totals at least 120 percent of average from October 1 through September 30, as measured by data averaged from nearby regional weather stations. The Authorized Officer may waive this stipulation, or portions of it. Such waiver will be documented and justified when not applicable, or when objectives are accomplished through another method.

SITE SPECIFIC CONDITIONS

- Both access roads would be graveled at the time of construction.
- Any long-term topsoil piles stored longer than six months would be seeded. EOG indicated during on-sites
 that once the pads were partially reclaimed, topsoil piles would be spread. Topsoil must be of an adequate
 volume to spread to a 4 inch depth at final reclamation.
- EOG must obtain a storm-water permit from the state prior to drilling.
- If EOG's drilling activity does not occur in the planned timeframe (July-October 2008), they must consult with the BLM to discuss potential sage-grouse issues.

Surprise Well (02-05H):

- The Surprise Well (02-05H) would not have a reserve pit, but be a closed system.
- The Surprise Well's production tanks would be moved to the eastern/northern portion of the pad, and during the post drilling partial pad reclamation, the eastern/northern portions of the pad would remain, rather than the western/southern portion nearest the drainage, as proposed in the APD.
- The access road for the Surprise Well would have culverts as stated in the APD and adequate drainage design, especially as it starts downhill west of the fence.

Spicer Well (03-32H):

- The Spicer Well (03-32H) would have a lined reserve pit. The pit would be thoroughly evaporated (no squeezing) and liner folded in and buried.
- The access road for the Spicer Well would have a single 18" x 60' culvert where the proposed access road leaves the County Road.

REGULATORY REMINDERS

- A. This permit is valid for a period of one year from the date of approval. Any requests for extensions must be submitted prior to the end of the one-year period. If the permit terminates, any surface disturbance created under the permit must be rehabilitated in accordance with the approved plan within 90 days of termination, unless otherwise approved by the Authorized Officer. An expired permit may be reinstated at the Authorized Officer's discretion; however, future operations may require a new application be filed for approval.
- B. All drilling operations, unless otherwise specifically approved in the APD, must be conducted in accordance

with Onshore Oil and Gas Order No. 2; Drilling Operations.

- C. All 7-Day Requirement responses are made part of this APD.
- D. There shall be no deviation from the proposed drilling and/or workover program as approved, without prior approval from the Kremmling and Little Snake Field Offices. Safe drilling and operating practices must be observed.
- E. Approval of this application does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease, which would entitle the applicant to conduct operations thereon.
- F. No location will be constructed or moved, no well will be plugged, and no drilling or workover equipment will be removed from a well to be placed in a suspended status without prior approval of the Kremmling and Little Snake Field Offices. If operations are to be suspended for more than 30 days, prior approval for certain well operations must be obtained and notification given before resumption of operations in accordance with 43 CFR 3162.3-2 and 3162.3-4.
- G. In the case of newly drilled dry holes or failures, and in emergency situations, oral approval for subsurface abandonment operations may be granted by the Little Snake Field Office. Oral approvals must be confirmed in writing (Notice of Intention to Abandon (Form 3160-5)) within 15 days. Unless the plugging is to take place immediately upon receipt of oral approval, the appropriate resource area must be notified at least 48 hours in advance of the plugging of the well, in order to provide a representative the opportunity to witness plugging operations.
- H. Whether the well is completed as a dry hole or as a producer, "Well Completion and Recompletion Report and Log" (Form 3160-4) must be submitted not later than 30 days after completion of the well or after completion of operations being performed, in accordance with Onshore Oil and Gas Order No. 1. Daily drilling reports, a copy of all logs, core descriptions, core analyses, well-test data, geologic summaries, sample descriptions, and all other surveys or data obtained and compiled during the drilling, workover, and/or completion operations (with Form 3160-4) will be filed and sent to the Little Snake Field Office, 455 Emerson Street, Craig, Colorado 81625. Samples (cuttings, fluid, and/or gas) will be submitted only when requested by the Authorized Officer.
- I. Section 102 (b) (3) of the Federal Oil and Gas Royalty Management Act of 1982, as implemented by the applicable provisions of the operating regulations at Title 43 CFR 3162.4-1 (c), requires that "not later than the fifth business day after any well begins production on which royalty is due anywhere on a least site or allocated to a lease site, or resumes production in the case of a well which has been off production for more than 90 days, the operator shall notify the authorized officer by letter or sundry notice, Form 3160-5, or orally to be followed by a letter or sundry notice, or the date on which such production has begun or resumed."

The date on which a well commences production, or resumes production after having been off production for more than 90 days is to be construed as follows:

- 1. For an oil well, the date on which liquid hydrocarbons are first sold or shipped from a temporary storage facility, such as a test tank or the date on which liquid hydrocarbons are first produced into a permanent storage facility, whichever occurs first;
- 2. For a gas well, that date on which gas is first measured through sales metering facilities or the date on which associated liquid hydrocarbons are first sold or shipped from a temporary storage facility, whichever occurs first. For purposes of this provision, a gas well shall not be considered to have been off production unless it is incapable of production.

If you fail to comply with this requirement in the manner and time allowed, you shall be liable for a civil penalty of up to \$10,000 per violation for each day such violation continues, not to exceed a maximum of 20 days. See Section 109(c) (3) of the Federal Oil and Gas Royalty Management Act of 1982 and the implementing regulations at Title 43 CFR 3163.2(e) (2).

J. This APD is approved subject to the requirement that, should the well be successful (completed for production or recompleted for production in a new interval), the Little Snake Field Office must be notified when it is placed

in a producing status. Such notification may be provided orally if confirmed in writing, and must be received in the Little Snake Field Office by not later than the 5th business day following the date on which the well is placed on production. The notification shall provide, as a minimum, the following information items:

- 1. Operator name
- 2. Well name, number, and location
- 3. Date well was placed on production
- 4. The lease, or communitized tract, or unit participating area to which the well's production is attributable.
- K. A separate Monthly Report of Operations, Form 3160-6, shall be submitted for each lease, unit participating area, or communitization agreement, beginning with the month in which drilling operation commence, in accordance with 43 CFR 3162.4-3. This report shall be sent to Minerals Management Service, Production Accounting Division, P.O. Box 17110, Denver, Colorado 80217.
- L. If at any time the facilities located on public lands authorized by the terms of the lease are no longer included in the lease (due to contraction in the unit or other lease or unit boundary change) the BLM will process a change in authorization to the appropriate statute. The authorization will be subject to appropriate rental or other financial obligation determined by the Authorized Officer.
- M. All produced liquids must be contained, including the dehydrator vent/condensate line effluent. All production pits must be bermed and fenced.
- N. Gas produced from this well may not be vented or flared beyond an initial, authorized test period of 30 days or 50 MMCF following completion, whichever comes first, without the prior written approval of the authorized officer. Should gas be vented of flared without approval beyond the authorized test period, you may be directed to shut the well in until the gas can be captured or approval to continue venting or flaring is granted and you may be required to compensated the lessor for that portion of the gas that was vented or flared without approval which is determined to have been avoidably lost.
- O. Produced water from newly completed wells may be temporarily disposed of into the reserve pit for a period of up to 90 days. During the 90-day periods, an application for approval of a permanent disposal method and location will be submitted according to Onshore Order No. 7 for approval.
- P. A schematic facilities diagram as required by CFR 43, Part 3162.7-5, shall be submitted to the Little Snake Field Office within 60 days of installation or first production, whichever occurs first. All site security regulations as specified in Onshore Order No. 3 shall be adhered to. All product lines entering and leaving hydrocarbon storage tanks will be effectively sealed in accordance with 3162.7-5(b).
- Q. The permit holder is required to use certified weed free hay, straw and mulch on BLM lands in Colorado should the use or storage of hay, straw or mulch be necessary. Any person who knowingly and willfully violates this regulation may be subject to a fine of not more than \$1,000 or imprisonment of not more than 12 months, or both as defined in 43 USC 1733(a).

Appendix 1

INTERDISCIPLINARY TEAM ANALYSIS REVIEW RECORD AND CHECKLIST:

Project Title: EOG Resources Applications for Permit to Drill

Project Leader: Kelly Hodgson

Consultation/Permit Requirements:

| Consultation | Date Initiated | Date Completed | Responsible Specialist/ Contractor | Comments |
|------------------------|-------------------|-------------------|------------------------------------------|----------------------------------------------|
| Cultural/Archeological | 2/14/08 | 2/29/08 | BBW | The project is a no effect, there are no |
| Clearance/SHPO | | | | historic properties affected. |
| Native American | 5/9/08 | 6/9/08 | BBW | To date, no Native American tribe has |
| | | | | identified any area of concern. |
| T&E Species/FWS | N/A | N/A | M.McGuire | |
| Permits Needed (i.e. | | 5/23/08 | P. Belcher | The applicant is responsible for obtaining a |
| Air or Water) | | | | stormwater permit from the state, and for |
| | | | | securing a legal water source. |

(NP) = Not Present

(NI) = Resource/Use Present but Not Impacted

(PI) = Potentially Impacted and Brought Forward for Analysis.

| NP NI | Discipline/Name | | Date Review | Initia ls | Review Comments (required for Critical Element NIs, and for elements that require a |
|----------|----------------------------|----------|----------------|--------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| PI | | | Comp. | | finding but are not carried forward for analysis.) |
| | | | CRITICAL | L ELEME | |
| PI | Air Quality | Belcher | 5/23/08 | PB | See analysis in EA. |
| NP | Areas of Critical Environn | nental | 6/27/08 | JS | There are no Areas of Critical Environmental |
| | Concern | J. Stout | | | Concern in the proximity of the proposed |
| | | | | | project area. |
| NI | Cultural Resources | Wyatt | 5/13/08 | BBW | A cultural resource inventory #CR-08-18 was conducted for the Surprise Well #2-05H and #CR-08-10 for Spicer Well #3-32H. The Spicer well survey located an historic ditch that is determined to be not eligible to the National Register of Historic Places; therefore, avoidance is not necessary. The ditch lies outside the proposed project area and would not be affected by well pad or road construction. No historic properties or cultural resources were located at the Surprise well location #2-05H. Thus, no historic properties would be impacted. |
| NP | Environmental Justice | J. Stout | 6/27/08 | JS | According to the most recent Census Bureau statistics (2000), there are no minority or low income communities within the Kremmling Planning Area. |
| NP | Farmlands, | • | 5/23/08 | PB | There are no farmlands, prime or unique, in the |
| | Prime and Unique | Belcher | | | proximity of the proposed project area. |
| NP | Floodplains | Belcher | 5/23/08 | PB | The proposed wells are located outside of the Grizzly Creek floodplain and would not affect |

| | | | | its functionality nor increase the flood hazard. |
|-----|---------------------------------------|-------------|--------------|---------------------------------------------------|
| NI | Invasive, | 5/22/08 | PT | There are no known weed infestations at the |
| 111 | Non-native Species Torma | | 1 1 | proposed drill-hole locations. The BLM, in |
| | Torrida | • | | partnership with Jackson County, is ensuring |
| | | | | that known weed infestations on public lands |
| | | | | are being treated. The Proposed Action would |
| | | | | cause surface disturbance that could result in |
| | | | | the invasion and spread of noxious weeds. |
| | | | | However, EOG has recognized the potential for |
| | | | | weed spread and would control the spread of |
| | | | | noxious weeds as part of the standard |
| | | | | Conditions of Approval (Attachtment #1). EOG |
| | | | | was also provided a copy of the approved seed |
| | | | | mix. Thus, there would be no impacts. |
| PI | Migratory Birds McGuire | 2 5/28/08 | MM | See analysis in EA. |
| NI | Native American | 6/9/08 | BBW | There would be no impacts. |
| 111 | Religious Concerns Wyatt | | DD '' | There would be no impacts. |
| PI | T/E, and Sensitive Species | 5/28/08 | MM | See analysis in EA. |
| 1.1 | (Finding on Standard 4) McGui | | 141141 | See analysis in Err. |
| PI | Wastes, Hazardous Hodgs | | KH | See analysis in EA. |
| 11 | and Solid | 3/23/00 | IXII | See analysis in Liv. |
| PI | Water Quality, Surface and Groun | d 5/23/08 | PB | See analysis in EA. |
| 1.1 | (Finding on Standard 5) Belche | | 1 1 1 | See unarysis in 271. |
| PI | Wetlands & Riparian Zones | 5/26/08 | PB | See analysis in EA. |
| | (Finding on Standard 2) Belche | | 110 | See analysis in Err. |
| NP | Wild and Scenic Rivers Sterin | 5/28/08 | BGS | There are no eligible Wild and Scenic River |
| 111 | Wha and Seeme Rivers Sterm | 3/20/00 | DOD | segments in the proposed project area. |
| NP | Wilderness Sterin | 5/28/08 | BGS | There is no designated Wilderness or |
| 111 | Windomess | 3/20/00 | DOD | Wilderness Study Areas in the proximity of the |
| | | | | proposed project area. |
| | NON-CRITICA | L ELEMENTS | (A finding r | must be made for these elements) |
| PI | Soils (Finding on Standard 1) Belche | | PB | See analysis in EA. |
| PI | Vegetation | 5/22/08 | PT | See analysis in EA. |
| | (Finding on Standard 3) Torma | ı | | |
| NP | Wildlife, Aquatic | 5/28/08 | MM | No aquatic wildlife present. Finding: N/A |
| | (Finding on Standard 3) McGuir | ·e | | |
| PI | Wildlife, Terrestrial | 5/28/08 | MM | See analysis in EA. |
| | (Finding on Standard 3) McGuir | re | | |
| | ОТ | HER NON-CRI | TICAL F | ELEMENTS |
| NI | Access/Transportation Monkous | | JJM | The county road and proposed new roads |
| | _ | | | would remain open to the public, hence there |
| | | | <u> </u> | would be no impact. |
| NI | Fire Wyatt | 5/13/08 | BBW | Well pads because of their size and roads |
| | | | | would provide potential fuel breaks from |
| | | | | wildland fire. Furrows created of sagebrush |
| | | | | and other vegetation from well pad and road |
| | | | | construction are a potential fire hazard because |
| | | | | of the concentration of fuels. These should be |
| | | | | mitigated through the dispersal of biomass |
| | | | | material or by burning. |
| NP | Forest Management Belche | r 5/21/08 | KB | No forest resources present. |
| | | | | |
| NI | Geology and Minerals Hodgs | on 5/23/08 | KH | The proposed casing and cementing programs |
| | | | | follow Onshore Order #2 and appear to be |
| | | | <u> </u> | adequate to protect and/or isolate all resources. |
| PI | Hydrology/Water Rights Belche | r 5/24/08 | PB | See analysis in EA. |
| NI | Paleontology Rupp | 4/9/2008 | FGR | APE is geologically mapped as "Residium on |

| | | | | Coalmont or Middle Park formations", and | | |
|---------------|-------------------------------|---------|-----|-------------------------------------------------|--|--|
| | | | | "Younger Gravel-Bearing Terrace Alluvium". | | |
| | | | | Neither are considered fossil bearing or | | |
| | | | | paleontologically sensitive. Thus, there would | | |
| | | | | be no impacts. | | |
| PI | Noise Monkouski | 5/21/08 | JJM | See analysis in EA. | | |
| PI | Range Management | 5/22/08 | PT | See analysis in EA. | | |
| | Torma | | | | | |
| NI | Lands/ Realty Authorizations | 4/25/08 | SC | There are no leases, permits or ROW's in the | | |
| | Cassel | | | location of the Surprise Well. There are no | | |
| | | | | leases or permits in the location of the Spicer | | |
| | | | | Well. For the Spicer Well, there are ROW's to | | |
| | | | | Jackson County for county road 28 which | | |
| | | | | would have increased traffic and Century Tel | | |
| | | | | for a buried telephone line along the county | | |
| | | | | road which won't be impacted. | | |
| NI | Recreation Monkouski | 5/21/08 | JM | Existing recreational uses in the general area | | |
| | | | | include hunting; wildlife viewing; and driving | | |
| | | | | for pleasure. There are no recreation activity | | |
| | | | | plans or other special recreation designations | | |
| | | | | for this area. The proposed action should have | | |
| | | | | no impacts to the recreation resource. | | |
| NI | Socio-Economic J. Stout | 6/27/08 | JS | There would be no socio-economic impacts. | | |
| NI | Visual Resources Hodgson | 5/23/08 | KH | There would be no impacts to VRM | | |
| | | | | classification (Class III) from implementation | | |
| | | | | of the Proposed Action or the No Action | | |
| | | | | Alternative. | | |
| NI | Cumulative Impact Summary | 6/27/08 | JS | See analysis in EA. | | |
| | J. Stout | | | | | |
| | FINAL REVIEW | | | | | |
| | P&E Coordinator J. Stout | 7/3/08 | JS | | | |
| $\overline{}$ | Field Manager D. Stout | | | | | |